Supplementary Table

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| **TABLE S1** |
| **Protein** | ***S*-acylation sites** | **zDHHC** | **Thioesterase** | **Role of S-acylation** | **Reference** |
| FcγRIIa | C208 |   |  | Required for receptor signaling integrity and stability in lipid rafts | 4, 24 |
| CD-36 | C3, C7, C464, C466 | DHHC5, DHHC6  |  | Required for ER to plasma membrane trafficking | 28 |
| LAT | C26, C29 | DHHC18  |  | Required for tyrosine phosphorylation and lipid raft targeting | 17, 32 |
| Rab7 | C83, C84 | DHHC1, DHHC8  |  | Required for recruitment of retromer and trafficking of the lysosomal sorting receptors to TGN | 16 |
| v-ATPase | C25 |   | PPT1 | Regulates interaction with adapter AP2 and AP3 | 3 |
| Vamp7 | C183 | DHHC18 |  | Required for Golgi localization | 17 |
| SNAP-23 | C79, C80, C83, C85, C89 | DHHC2, DHHC3 DHHC7, DHHC17 | APT1 | Required for lipid raft targeting | 25, 32 |
| SNAP-25 | C85, C88, C90, C92 | DHHC2, DHHC3 DHHC7, DHHC8  DHHC15, DHHC17 |  | Required for lipid raft targeting and endosome localization | 7, 10, 25  |
| Syntaxin 7 | C239 |   |  | Required for internalization at the plasma membrane | 9 |
| Syntaxin 8 | C214 |   |  | unknown | 9 |
| PI4KII𝛼 | C173, C174, C176, C177 | DHHC3, DHHC7 |  | Required for targeting to TGN and proper (integral) membrane association. | 14 |
| MHCI | C309, C326 |   |  | Required for egress from endoplasmic reticulum to cell surface | 8 |
| Lck | C3, C5 | DHHC2, DHHC17 DHHC18, DHCC21  | APT1 | Required for plasma membrane localization and T-cell signaling | 1, 2, 6, 11, 29, 31 |
| Lyn | C3 |   |  | Required for PM association | 27, 30 |
| Hck | C3 |   |  | 23 |
| Fyn | C3, C6 | ZDHHC2, ZDHHC3 ZDHHC7, ZDHHC10 ZDHHC15, ZDHHC20 DHHC21 | PPT1 | 12, 15, 26, 27   |
| Yes | C3 |   |  | 27 |
| Cdc42 | C189 | DHHC8 |  | 19, 22 |
| Rac1 | C178 | ZDHHC3  |  | 20 |
| Flotillin-1 | Cys34 | DHHC5  |  | 5, 18 |
| Flotillin-2  | Cys4, 19, 20 | DHHC5 |  | 13, 21 |
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